IN THE CLAIMS

Please AMEND the claims as follows:

1-28. (Cancelled)

29. (Currently Amended) A method for ~~preparing~~ producing a cell capable of ~~directed and~~ selective genetic diversification of a transgenic target nucleic acid sequence by hypermutation ~~or a combination of hypermutation and gene conversion~~ comprising ~~(a)~~ transfecting a lymphoid cell capable of gene conversion with a genetic construct containing ~~the~~ said target nucleic acid sequence, ~~and (b) identifying a cell having the endogenous V-gene or a fragment thereof replaced with the target nucleic acid~~ into the immunoglobulin locus of said lymphoid cell, wherein said lymphoid cell contains no deleterious mutations in genes encoding paralogues and analogues of the RAD51 protein.

30. (Currently Amended) The method according to claim 29, wherein said lymphoid cell is further capable of selective genetic diversification of said transgenic target nucleic acid sequence by a combination of hypermutation and gene conversion and said genetic construct containing ~~the~~ said target nucleic acid sequence further includes ~~further contains at least~~ one or more nucleic acid sequences capable of serving as [[a]] gene conversion ~~donor~~ donors for ~~the~~ said target nucleic acid sequence.

31. (Currently Amended) The method according to claim 29, further comprising transfecting ~~wherein the~~ a construct containing a component of said immunoglobulin locus into said immunoglobulin locus containing said target nucleic acid one or more times ~~containing the target nucleic acid is constructed by multiple rounds of transfection~~.

32-34. (Cancelled)

35. (Currently amended) The method according to claim 29, wherein ~~the~~ said transfecting said lymphoid cell capable of gene conversion comprises inserting said target nucleic acid sequence ~~is inserted~~ into ~~the cell chromosome~~ said immunoglobulin locus of said lymphoid cell ~~at a particular location~~ by targeted integration.

36.-43. (Cancelled)

44. (New) The method according to claim 29, wherein an endogenous V-gene or a fragment thereof in said lymphoid cell is replaced with said target nucleic acid sequence.

45. (New) The method according to claim 29, wherein said lymphoid cell is capable of homologous recombination and DNA repair.

46. (New) The method according to claim 29, wherein said lymphoid cell is an immunoglobulin-expressing B cell.

47. (New) The method according to claim 29, wherein said lymphoid cell is derived from chicken, sheep, cow, pig, or rabbit.

48. (New) The method according to claim 29, wherein said lymphoid cell is a chicken Bursal lymphoma cell.

49. (New) The method according to claim 29, wherein said lymphoid cell is a DT40 cell or a derivative thereof.

50. (New) The method according to claim 29, wherein said target nucleic acid encodes a protein or expresses a regulatory activity.

51. (New) The method according to claim 29, wherein said target nucleic acid encodes an immunoglobulin chain, a selection marker, a DNA-binding protein or fragment thereof, an enzyme, and a receptor protein or fragment thereof.

52. (New) The method according to claim 29, wherein said target nucleic acid sequence is a human immunoglobulin V-gene or a part thereof.

53. (New) The method according to claim 29, wherein said target nucleic acid sequence comprises a transcription regulatory element or an interfering RNA (RNAi) sequence.

54. (New) The method according to claim 53, wherein said transcription regulatory element is a promoter.

55. (New) The method according to claim 29, further comprising identifying said lymphoid cell containing said target nucleic acid sequence.

56. (New) The method according to claim 55, wherein said identifying said lymphoid cell containing said target nucleic acid sequence comprises identifying one or more proteins encoded by said target nucleic acid sequence on the surface of said lymphoid cell, within said lymphoid cell, or outside of said lymphoid cell.

57. (New) The method according claim 30, further comprising modulating said selective genetic diversification of said transgenic target nucleic acid sequence by varying the number, the orientation, the length or the degree of homology of said nucleic acid sequences capable of serving as gene conversion donors.

58. (New) The method according to claim 29, further comprising modulating said selective genetic diversification of said transgenic target nucleic acid sequence with a DNA repair or recombination factor other than a RAD51 paralogue or analogue.

59. (New) The method according to claim 59, wherein said DNA repair or recombination factor is a RAD54 protein.

60. (New) A method for producing a cell capable of selective genetic diversification of a transgenic targeted nucleic acid sequence by hypermutation comprising transfecting a lymphoid cell capable of gene conversion with a genetic construct containing said target nucleic acid sequence, wherein said target nucleic acid sequence is inserted into a chromosome of said lymphoid cell, and wherein said genetic construct further comprises one or more nucleic acid sequences capable of directing genetic diversification.

61. (New) The method according to claim 60, wherein said genetic construct is inserted into said chromosome of said lymphoid cell at a particular location by targeted integration.

62. (New) The method according to claim 61, wherein said genetic construct is inserted into a chromosome of said lymphoid cell at a random chromosomal position.